

## USDA National Nutrient Database for Standard Reference Release 28

## Full Report (All Nutrients) 09054, Blueberries, frozen, unsweetened

Report Date: December 04, 2015 17:35 EST

Nutrient values and weights are for edible portion.

## Food Group : Fruits and Fruit Juices

Carbohydrate Factor: 3.6 Fat Factor: 8.37 Protein Factor: 3.36 Nitrogen to Protein Conversion Factor: 6.25

Nutrient	Unit	1 Value Per 100 g	Data points	Std. Error	1 cup, unthawed 155g	1 package (20 oz) 567g
<b>Proximates</b>						
Water	g	86.59	3	0.573	134.21	490.97
Energy	kcal	51	--	--	79	289
Energy	kJ	213	--	--	330	1208
Protein	g	0.42	3	0.045	0.65	2.38
Total lipid (fat)	g	0.64	3	0.018	0.99	3.63
Ash	g	0.18	3	0.018	0.28	1.02
Carbohydrate, by difference	g	12.17	--	--	18.86	69.00
Fiber, total dietary	g	2.7	--	--	4.2	15.3
Sugars, total	g	8.45	--	--	13.10	47.91
<b>Minerals</b>						
Calcium, Ca	mg	8	3	2.486	12	45
Iron, Fe	mg	0.18	3	0.076	0.28	1.02
Magnesium, Mg	mg	5	3	0.731	8	28
Phosphorus, P	mg	11	3	2.351	17	62
Potassium, K	mg	54	3	1.202	84	306
Sodium, Na	mg	1	3	0.167	2	6
Zinc, Zn	mg	0.07	3	0.012	0.11	0.40
Copper, Cu	mg	0.033	3	0.007	0.051	0.187
Manganese, Mn	mg	0.147	3	0.087	0.228	0.833
Selenium, Se	µg	0.1	--	--	0.2	0.6
<b>Vitamins</b>						
Vitamin C, total ascorbic acid	mg	2.5	3	2.366	3.9	14.2
Thiamin	mg	0.032	3	0.001	0.050	0.181

Nutrient	Unit	1			1 cup, unthawed 155g	1 package (20 oz) 567g
		Value Per 100 g	Data points	Std. Error		
Riboflavin	mg	0.037	3	0.005	0.057	0.210
Niacin	mg	0.520	3	0.012	0.806	2.948
Pantothenic acid	mg	0.125	3	0.024	0.194	0.709
Vitamin B-6	mg	0.059	3	0.002	0.091	0.335
Folate, total	µg	7	3	1.257	11	40
Folic acid	µg	0	--	--	0	0
Folate, food	µg	7	3	1.257	11	40
Folate, DFE	µg	7	--	--	11	40
Choline, total	mg	5.1	--	--	7.9	28.9
Vitamin B-12	µg	0.00	--	--	0.00	0.00
Vitamin B-12, added	µg	0.00	--	--	0.00	0.00
Vitamin A, RAE	µg	2	--	--	3	11
Retinol	µg	0	--	--	0	0
Carotene, beta	µg	28	--	--	43	159
Carotene, alpha	µg	0	--	--	0	0
Cryptoxanthin, beta	µg	0	--	--	0	0
Vitamin A, IU	IU	46	--	--	71	261
Lycopene	µg	0	--	--	0	0
Lutein + zeaxanthin	µg	68	--	--	105	386
Vitamin E (alpha-tocopherol)	mg	0.48	--	--	0.74	2.72
Vitamin E, added	mg	0.00	--	--	0.00	0.00
Vitamin D (D2 + D3)	µg	0.0	--	--	0.0	0.0
Vitamin D	IU	0	--	--	0	0
Vitamin K (phylloquinone)	µg	16.4	--	--	25.4	93.0
<b>Lipids</b>						
Fatty acids, total saturated	g	0.053	--	--	0.082	0.301
4:0	g	0.000	--	--	0.000	0.000
6:0	g	0.000	--	--	0.000	0.000
8:0	g	0.000	--	--	0.000	0.000
10:0	g	0.000	--	--	0.000	0.000
12:0	g	0.000	--	--	0.000	0.000
14:0	g	0.000	--	--	0.000	0.000
16:0	g	0.031	--	--	0.048	0.176

Nutrient	Unit	1			1 cup, unthawed 155g	1 package (20 oz) 567g
		Value Per 100	Data points	Std. Error		
	g					
18:0	g	0.011	--	--	0.017	0.062
Fatty acids, total monounsaturated	g	0.091	--	--	0.141	0.516
16:1 undifferentiated	g	0.002	--	--	0.003	0.011
18:1 undifferentiated	g	0.087	--	--	0.135	0.493
20:1	g	0.000	--	--	0.000	0.000
22:1 undifferentiated	g	0.000	--	--	0.000	0.000
Fatty acids, total polyunsaturated	g	0.279	--	--	0.432	1.582
18:2 undifferentiated	g	0.167	--	--	0.259	0.947
18:3 undifferentiated	g	0.112	--	--	0.174	0.635
18:4	g	0.000	--	--	0.000	0.000
20:4 undifferentiated	g	0.000	--	--	0.000	0.000
20:5 n-3 (EPA)	g	0.000	--	--	0.000	0.000
22:5 n-3 (DPA)	g	0.000	--	--	0.000	0.000
22:6 n-3 (DHA)	g	0.000	--	--	0.000	0.000
Fatty acids, total trans	g	0.000	--	--	0.000	0.000
Cholesterol	mg	0	--	--	0	0
<b>Amino Acids</b>						
Tryptophan	g	0.002	--	--	0.003	0.011
Threonine	g	0.012	--	--	0.019	0.068
Isoleucine	g	0.013	--	--	0.020	0.074
Leucine	g	0.025	--	--	0.039	0.142
Lysine	g	0.008	--	--	0.012	0.045
Methionine	g	0.007	--	--	0.011	0.040
Cystine	g	0.004	--	--	0.006	0.023
Phenylalanine	g	0.015	--	--	0.023	0.085
Tyrosine	g	0.005	--	--	0.008	0.028
Valine	g	0.018	--	--	0.028	0.102
Arginine	g	0.022	--	--	0.034	0.125
Histidine	g	0.006	--	--	0.009	0.034
Alanine	g	0.018	--	--	0.028	0.102
Aspartic acid	g	0.033	--	--	0.051	0.187
Glutamic acid	g	0.052	--	--	0.081	0.295
Glycine	g	0.017	--	--	0.026	0.096

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Proline	g	0.015	--	--	0.023	0.085
Serine	g	0.013	--	--	0.020	0.074
<b>Other</b>						
Alcohol, ethyl	g	0.0	--	--	0.0	0.0
Caffeine	mg	0	--	--	0	0
Theobromine	mg	0	--	--	0	0
<b>Flavonoids</b>						
Anthocyanidins						
Cyanidin <sup>3 4 5</sup>	mg	4.36	2	--	6.76	24.72
Petunidin <sup>5</sup>	mg	18.15	1	--	28.13	102.91
Delphinidin <sup>4 5</sup>	mg	21.58	2	--	33.45	122.36
Malvidin <sup>5</sup>	mg	49.65	1	--	76.96	281.52
Pelargonidin <sup>1 3 4</sup>	mg	0.01	1	--	0.02	0.06
Peonidin <sup>5</sup>	mg	0.46	1	--	0.71	2.61
Flavones						
Apigenin <sup>2 4</sup>	mg	0.01	1	--	0.02	0.06
Luteolin <sup>2 4</sup>	mg	1.79	1	--	2.77	10.15
Flavonols						
Kaempferol <sup>2 4</sup>	mg	1.10	1	--	1.70	6.24
Myricetin <sup>2 4 6</sup>	mg	1.75	7	0.33	2.71	9.92
Quercetin <sup>2 4 6</sup>	mg	4.64	7	0.92	7.19	26.31

<sup>1</sup>de Brito, E. S., de Araújo, M. C. P., Alves, R. E., Carkeet, C., Clevidence, B. A., and Novotny, J. A. Anthocyanins present in selected tropical fruits: Acerola, Jambolão, Jussara, and Guajiru., 2007 J. Agric. Food Chem. 55 pp.9389-9394

<sup>2</sup>Ribani, H. F., Huber, L. S., and Ridriguez-Amaya, D. B. Flavonols in fresh and processed Brazilian fruits., 2009 J. Food Comp. Anal. 22 pp.263-268

<sup>3</sup>Ancos, B. de, Gonzalez, E., and Cano, M. P. Differentiation of raspberry varieties according to anthocyanin composition., 1999 Z. Lebensm Unters Forsch A 208 pp.33-38

<sup>4</sup>Andres-Lacueva, C., Monagas, M., Khan, N., Izquierdo-Pulido, M., Urpi-Sarda, M., Permanyer, J., and Lamuela-Raventos, R. M. Flavanol and flavonol contents of cocoa powder products: Influence of the manufacturing process., 2008 J. Agric. Food Chem. 56 pp.3111-3117

<sup>5</sup>Lee, J., Durst, R.W., and Wrolstad, R.E. Impact of juice processing on blueberry anthocyanins and polyphenolics: comparison of two pretreatments., 2002 J. Food Sci. 67 5 pp.1660-1667

<sup>6</sup>Häkkinen, S. H., Törrönen, A. R. Content of flavonols and selected phenolic acids in strawberries and Vaccinium species: influence of cultivar, cultivation site and technique., 2000 Food Res. Int. 33 pp.517-524